



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,991	09/15/2000	Jeffrey Scott Kuskin	73139/0269824	3505

27498 7590 01/30/2004

PILLSBURY WINTHROP LLP
2475 HANOVER STREET
PALO ALTO, CA 94304-1114

EXAMINER

COLIN, CARL G

ART UNIT	PAPER NUMBER
----------	--------------

2136

DATE MAILED: 01/30/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

11

Office Action Summary

Application No.

09/662,991

Applicant(s)

KUSKIN ET AL.

Examiner

Carl Colin

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Pursuant to USC 131, claims 1-18 are presented for examination.

Specification

2. The disclosure is objected to because of the following informalities: on page 18, line 6, retrieve "25" should be replaced with --retrieved-- also, on page 6, line 19, reference number "18" should be --42--. Appropriate correction is required.

Drawings

3. Figure 1 is objected to as failing to comply with 37 CFR 1.84(p)(5) because it includes the reference signs: 401 not mentioned in the description. Appropriate correction is required.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

Art Unit: 2136

which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.1 **Claims 1-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,442,708 to **Adams Jr. et al.** in view of US Patent 5,826,109 to **Abramson et al.** and in view of US Patent 4,933,938 to **Sheehy**.

4.2 **As per claims 1, 3, 7, 9, 13, and 15, Adams Jr. et al.** substantially teaches a system for operation on a packet received from an external source, the packet comprising a header that is not encrypted and a body that is encrypted (see column 2, lines 36-46), the system comprising: a system memory (see figure 2), a networking unit (see figure 3), the networking unit including a system memory including entries for source address and corresponding keys (see column 4, lines 57-64); a processor (see figure 3), and a controller, the controller effecting communication and data transfer between the system memory, the networking unit and the processor, wherein the key-caching program comprising code to effect (see figures-1-3). **Adams Jr. et al.** further discloses extracting from the header a source address (see column 7, lines 45-54 and column 6, lines 13-22); extracting from the main memory a key corresponding to source address and decrypt the body of the packet (see column 7, lines 45-61). **Adams Jr. et al.** uses a system memory for storing key corresponding to source address but fails to teach using a cache memory in addition to a system memory. **Abramson et al.** in an analogous art teaches a system including a cache memory as it is well known in the art that many of today's memory systems also include a cache memory as a very fast local storage memory to hold data that are frequently requested by

Art Unit: 2136

a CPU (see column 1, lines 35-41). Therefore, it would have been obvious at the time the invention was made to modify the system of **Adams Jr. et al.** to include a cache memory for storage of key corresponding to source address for fast memory access as taught by **Abramson et al.** This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by **Abramson et al.**, in order to provide the capability of using a fast local storage memory.

Adams Jr. et al. does not explicitly teach authorizing an acknowledgement signal for the external source. However, **Abramson et al.** in an analogous art teaches obtain data from the external source even in the event of a cache miss for the advantage of being able to access a cache memory while the cache has other memory operations pending (see column 2, lines 1-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of **Adams Jr. et al.** to provide a system to authorize the external source so as to allow access to the cache memory while the cache has other memory operations pending when data is/not included in cache as taught by **Abramson et al.** This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Abramson et al.** so as to allow access to the cache memory while the cache has other memory operations pending.

Adams Jr. et al. teaches determining whether the source address is included in the system memory but does not explicitly teach determining whether the source address is included in the cache. However, **Sheehy** in an analogous art teaches determining whether the source address is included in the cache and when source address not included in an entry of the cache storing a new entry in the cache (see column 5, lines 6-15). Therefore, it would have been

Art Unit: 2136

obvious to one of ordinary skill in the art at the time the invention was made to modify the system of **Adams Jr. et al.** to include a cache to determine whether the source address is in the cache and when not included in the cache to store the source address and key in the cache as taught by **Sheehy** in order to provide adequate addressing (see column 1). This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Sheehy** so as to provide adequate addressing.

4.3 **As per claims 2, 8, and 14, Adams Jr. et al.** discloses the limitation of wherein the key-caching program further comprises code to effect: when the source address is not included in an entry of the cache, dropping the packet (see column 8, lines 17-23).

4.4 **As per claims 4-6, 10-12, and 16-18, Abramson et al.** discloses the limitation of wherein the cache includes fast memory (see column 1, lines 35-40).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. US Patent 5,845,324 White et al.

This patent pertains to a system to the use of a cache system with reduced latency for cache access.

b. US Patent 6,507,908 Caronni

Art Unit: 2136

This patent pertains to a system with address and key association for encryption/decryption purposes.

5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 703-305-0355. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cc

Carl Colin

Patent Examiner

January 9, 2004

Emmanuel L. Moise
EMMANUEL L. MOISE
PRIMARY EXAMINER
A/U 2136